

Residential New Construction Program Guide, rev 1

For Fiscal Year 2024

(7/1/2023 through 6/30/2024)

New Jersey's **Clean Energy** Program[™] Residential New Construction Program Guide

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1. Overall Program Description

The Residential New Construction (RNC) Program is designed to increase the energy efficiency and environmental performance of residential new construction buildings (single, multi-single, and multifamily) in New Jersey. The program strategy is to establish standards for energy efficient new construction in New Jersey based on national platforms, including EPA ENERGY STAR® Residential New Construction Program, and the DOE Zero Energy Ready Home (ZERH) Program. The program offers technical support and incentives to builders of new single, multi-single, or multifamily residential structures or homes undergoing a complete rehabilitation (gut) that comply with these standards.

To participate in the RNC program, builders agree to work with independent third-party inspectors (Raters) who inspect, measure, and test the home's performance during and after construction. Incentives are designed to partially offset the construction costs associated with building higher efficiency homes.

2. Target Market & Eligibility

Newly constructed single family (i.e., one- and two-family buildings), multi-single (i.e., townhomes¹), and multifamily buildings are eligible for program benefits if the home, townhome, or multifamily building will use natural gas and/or electricity as the primary heating fuel supplied by a New Jersey investor-owned utility (IOU). Target markets for this program are homebuilders and Raters.

The RNC Program will also enroll any existing home undergoing substantial gut renovation or remodeling that meets the criteria above. The EPA identifies the following actions that may be necessary for a gutrehab project to meet ENERGY STAR Residential New Construction Program requirements:

- Remove exterior cladding and the outer surface of roof to install and/or verify the necessary components on the Water Management Builder System Checklist and Thermal Enclosure System Rater Checklist.
- Replace or expose most systems, equipment, or components (e.g., HVAC and ducts, windows, insulation.)
- Grade the site and/or provide drains/swales.
- Implement below-grade moisture management strategies.

3. Background & Definitions

IECC Energy Codes

The New Jersey Department of Community Affairs adopted the 2021 International Energy Conservation Code (IECC) on September 6, 2022, which became effective March 6, 2023. Homes built to the 2021 code will be $^9\%$ more efficient than ones built to the former 2018 IECC code. The 2021 IECC aims to increase efficiency, be more user-friendly, and encourage more flexibility in design and construction. All projects

¹ A single-family dwelling unit constructed in groups of three or more attached units in which each unit extends from foundation to roof and with open space on at least two sides.

participating in the program must exceed the energy code they were permitted under, unless otherwise specified.

Energy Rating Index

The Energy Rating Index (ERI) represents the relative energy efficiency of a building. The ERI is a scale with numbers that range from 0, to represent net zero energy, to 100, to represent the approximate efficiency of a home built to the 2006 IECC. Each number on the scale represents a 1% change in the relative energy efficiency of the building. Each point higher is 1% less efficient, and each point lower is 1% more efficient. In short, the lower the ERI, the more efficient the home. The EPA's ENERGY STAR certification and DOE Zero Energy Ready Home programs also utilize the ERI.

Zero Energy Ready Home

The US Department of Energy created a national Zero Energy Ready Home (ZERH) program with strict requirements. When a renewable energy component is connected to the home (e.g., Solar PV system), the energy produced by the renewable component can offset the modeled electric consumption of the home annually; therefore, the net energy consumed on an annual basis by the home is zero.

4. Program Requirements

Participation Options

The Program offers builders options to participate in the program by building homes to varying standards or guidelines. Incentives are offered based on achieving ENERGY STAR or ZERH certifications, as detailed below, with an additional incentive for each MMBtu energy savings above the New Jersey Reference Home, shown in Table 1, below.

ENERGY STAR Residential New Construction Program

The <u>ENERGY STAR Decision Tree</u> can be used to help determine which ENERGY STAR program is right for you.

ENERGY STAR Single-Family New Homes (SFNH):

Builders must construct a home and meet or exceed <u>ENERGY STAR SFNH</u> specifications and earn the ENERGY STAR certification for the home. In this case, the Rater will score the home's performance using the ERI.

ENERGY STAR Multifamily New Construction (MFNC):

Builders must meet or exceed ENERGY STAR MFNC program standards, using either the AHSRAE path or the ERI path to determine energy savings of a customized set of measures.

<u>ASHRAE Path:</u> For multifamily buildings pursuing this compliance pathway, the building must use the Appendix G modeling method from the ASHRAE 90.1 that was effective at the time of the issuance of the building permit and must demonstrate a minimum of 15% energy cost savings OR 15% source energy savings when compared to the energy code under which the building is permitted. Buildings using this compliance pathway must also use the applicable <u>EPA Performance Path Calculator</u> and <u>Simulation Guidelines</u>. These

- documents can be found at: <u>Residential New Construction Program Requirements |</u> ENERGY STAR
- <u>ERI Path:</u> For multifamily buildings pursuing this compliance pathway, each unit is equivalent in performance to the minimum requirements of the New Jersey reference home, as assessed through energy modeling, and the building must meet or exceed the requirements in the <u>National Rater Design Review and Field Checklists</u>, which include meeting the minimum requirements set for common spaces. Buildings must be certified through a Home Certification Organization (HCO). The HCO's rating tool must be EPA approved and shall automatically determine the ENERGY STAR ERI Target².

U.S. Department of Energy ZERH Program

Zero Energy Ready Home & Zero Ready Energy Home + RE

Builders must construct the home in conformance with the DOE Zero Energy Ready Home specifications, in which the ENERGY STAR SFNH specifications are a pre-requisite. The program also has a Zero Energy Ready Home 100% Renewables offering, whereby 100% of the building's modeled electric site energy usage must be met by renewable energy systems installed onsite at the time of completion of the home.

Certification Versions

ENERGY STAR SFNH Program

Applicants must satisfy the requirements for ENERGY STAR certification utilizing the Performance Path by way of the ERI. The applicant can choose to base its application on compliance with either ENERGY STAR SFNH Version 3.1 or ENERGY STAR SFNH Version 3.2. Projects whose building permits are issued under IECC 2021 and whose submissions are based upon compliance with ENERGY STAR SFNH Version 3.1 must also demonstrate at least 10% site energy savings as compared to the IECC 2021 code baseline.

ENERGY STAR MFNC Program

Applicants must satisfy the requirements for ENERGY STAR certification utilizing the Performance Path by way of the ERI or ASHRAE pathways. The applicant can choose to base its application on compliance with either ENERGY STAR MFNC Version 1.1 or ENERGY STAR MFNC Version 1.2.

Projects whose building permits are issued under IECC 2021, whose submissions are based upon compliance with ENERGY STAR MFNC Version 1.1 and are using the ERI path must also demonstrate at least 10% site energy savings as compared to the IECC 2021 code baseline. Alternatively, if the project is using the ASHRAE path, they must demonstrate at least 15% source or cost energy savings as compared to the ASHRAE 90.1-2019 baseline. ASHRAE path projects must use the ASHRAE 90.1 Performance Based Compliance Form for compliance.

US DOE ZERH Program

Applicants must satisfy the requirements for the ZERH certification following the applicable version of the program, which is determined in accordance with the DOE ZERH – Program Versions and

 $^{^2}$ Raters must use an Approved Software Rating Tool that has been updated to ANSI / RESNET / ICC 301-2019, or later, to use the ERI Path for buildings that exceed five stories.

Implementation Timelines available here: <u>DOE Zero Energy Ready Home (ZERH) Program Requirements</u> <u>| Department of Energy.</u> For projects whose building permits are issued under IECC 2021 and whose submissions are based upon compliance with ZERH Version 1, the prerequisite for ENERGY STAR SFNH shall be applied, as described above.

Transition

At the time of the release of this document, the updated User Defined Reference Home (UDRH) for homes following the current energy code has not yet been fully developed. This impacts all projects whose performance is measured using the ERI, including ENERGY STAR SFNH, ENERGY STAR Multifamily New Construction ERI Path.

Once the UDRH is approved for use, a notice will be released to the Rater Company network that this file is available. Once that announcement is released, Rater Companies will have a 90-day grace period during which they can continue to use the existing UDRH to project savings. At the completion of the 90-day grace period, the above requirements will be in place. The grace period is based on Site Registration Received date.

Note, this grace period does not apply to ENERGY STAR Multifamily New Construction ASHRAE Path.

5. Financial Incentives

The table below displays the financial incentives payable to the builder or contractor depending on the home's final certification level and incremental MMBtu savings. *Note: The higher the energy savings, the larger the rebate.*

Table 1. Single-Family, Townhouse, and Multifamily incentive	tive structure.
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	Single Family	Townhouse	Multifamily	Multifamily
	(1 & 2 Family Homes)	(3+ Connected Units)	(5 stories or less)	(MFNC)
Energy Star	\$1,000 per home	\$500 per home	\$500 per unit	\$500 per unit
	+	+	+	+
	\$30 per MMBtu saved	\$30 per MMBtu saved	\$30 per MMBtu saved	\$30 per MMBtu saved
ZERH	\$4,000 per home	\$2,500 per home		N/A
(Zero Energy Ready	+	+	\$1,500 per unit	
Home)	\$30 per MMBtu saved	\$30 per MMBtu saved	+	
	Rater Incentive: \$1,200	Rater Incentive: \$1,200	\$30 per MMBtu saved	
	per home	per home		
ZERH +	\$6,000 per home	\$4,000 per home		N/A
Renewables	+	+	\$2,250 per unit	
Reflevables	\$30 per MMBtu saved	\$30 per MMBtu saved	+	
	Rater Incentive: \$1,200	Rater Incentive: \$1,200	\$30 per MMBtu saved	
	per home	per home		
UEZ/Affordable	, ¢500	, Ć500 b	N1/A	21/2
Housing Bonus	+\$500 per home	+\$500 per home	N/A	N/A

Table 1 Notes:

The above \$30/MMBTU is based on calculated savings before any savings from renewable energy
(RE) is added. RE represents renewable energy to offset the remaining annual energy load.
MMBtu is the incremental annual energy saved as compared to the calculated annual usage of

- the baseline reference home, defined by the applicable energy code as described in more detail in the New Jersey Clean Energy Program Protocols to Measure Resource Savings.
- The UEZ or Affordable Housing bonus incentive is available for each single family detached and townhouse (i.e., multi-single) dwelling that is verified as being in an Urban Enterprise Zone (UEZ) or designated as Affordable Housing as defined below. Only one incentive type can be applied per unit.
 - "Affordable Housing" means any housing that an official document identifies as participating in a federal, state, or local affordable housing program. This may also include official documents showing identification from the New Jersey Housing and Mortgage Finance Agency, United States Low Income Housing Tax Credit (LIHTC), and United States Housing and Urban Development (HUD).
 - An Urban Enterprise Zone (UEZ) is an area within a municipality (or group of municipalities) in New Jersey suffering from economic distress and meeting other criteria. A list of current UEZs within the State of New Jersey is available at https://www.nj.gov/treasury/taxation/businesses/salestax/uez-over.shtml

6. General Process Outline

Specific program requirements and construction processes must be met for a builder to benefit from each incentive level. For all offerings, the program mandates that builders/developers work with a program participating Rating Company to ensure that the high efficiency requirements are met.

In general, there is an overall process for a Builder and Rater to participate in the program which is outlined below.

- 1. A builder or developer selects and enters into agreement with a Rating Company (that is a participating Rater of the program) to perform the energy ratings, inspections, testing, and certifications required by the RNC program.
- 2. The builder/developer works with the Rating Company to ensure that the builder's site personnel, crews, and contractors are familiar with program requirements.
- 3. The Builder will attend the Rating Company's design review meeting and a pre-construction meeting with all other appropriate contractors, sub-contractors, and stakeholders.
- 4. The Rating Company then registers a project with the program through the online portal.
- 5. The Program reviews the Site Registration and all supporting documents.
 - a. If deemed complete, the project will be assigned to a Program Specialist, and the Status will be updated to Site Registration Approved.
 - b. If deemed incomplete, the Rater will be notified of any deficiencies and the project will be placed in Site Registration Error status. The Rater must resolve the document issues and revise the online application and resubmit within 30-days or the project will be cancelled and will require a new registration to be considered again.

- 6. Once the project has been assigned a Program Specialist, they will reserve the funds for the project based on the preliminary design and send an enrollment letter to the Rater. The project will then move to the Site Registration Complete status. The Builder proceeds with construction and coordinates the scheduling of all required inspections with the Rating Company, namely a Pre-Drywall Inspection and Final Inspection.
 - a. The project must be registered (i.e., Site Registration Received or any later status, and have a Project Number) before notifying the RNC program about the Pre-Drywall inspection. NOTE: Pre-Drywall Inspections scheduled before the project has received the enrollment letter (i.e. Site Registration Complete status) are doing so at risk of not being successfully registered into the program.
- 7. If any deficiencies are identified by the Rating Company during either of these inspections, the builder must rectify until the inspection has passed. The Rating Company reports the results of **each** inspection to their Program Specialist via email using the Inspection Workbook.
 - a. If an inspection is reported as a passed on the first visit, the *Passed Inspection Report* may be, but is not required, uploaded to the portal at that time. The Passed Inspection Report must be uploaded before submitting any *Incentive Application* documents.
 - b. If an inspection report is reported as a failed, each *Failed Inspection Report*, at the time of failure, must be uploaded to the portal and the subsequent Passed Inspection Report before the project can progress in the portal.
- 8. When all program requirements are met, an ENERGY STAR or ZERH label(s)/certificate(s) is issued by the Rater to the Builder/homeowner.
- 9. The Rating Company will complete the online Incentive Application and upload completed checklists, rating software data files, ENERGY STAR or ZERH summary reports, etc.
- 10. The Program reviews and approves the Incentive Application, and payment is sent directly to the Builder, Rater, or Third-Party Payee in the form of a check.
 - a. If the Incentive Application is found to be missing documentation or does not meet the minimum program requirements for any other reason, the Program Specialist or the TRC QA department will move the project into File Review Error status and follow up with a list of additional requirements that must be met to receive incentives. The Rater has 30days from the receipt of the notice of the deficiency to respond, as directed in the notice, and resolve the concerns.

7. Program Registration and Enrollment Procedures and Requirements ENROLLMENT

1. Raters must utilize the Rater Portal³ to submit electronic applications and all required program documents. Raters obtain a project number that starts with "NJRCCR" from the portal indicating that the project has been received by the Program.

³ Rater Portal can be found at the following link: https:/njrnc.customerapplication.com/sign-in.

- a. Once a project is registered (i.e., Site Registration Received or any later status, and has a Project Number), the Rater may proceed with scheduling the Pre-Drywall inspection for the following business day. NOTE: Pre-Drywall Inspections scheduled before the project has received the enrollment letter (i.e. Site Registration Complete status) are doing so at risk of not being successfully registered into the program
- 2. Projects will receive an Enrollment Letter and funds will be reserved for each project when the Site Registration portal entries and documents are deemed complete. These projects will expire according to building type as listed below, with the time measured from Site Registration Received status, as applicable:
 - a. Single Family and townhomes expire one year after the Site Registration is received. The Rater may apply to the Program for an extension of its expiration date. Such extensions may be granted only for good cause and in unusual, extenuating circumstances beyond the applicant's control. As soon as a Rater is aware that an expiration date will not be met, they should email an extension request to the program inbox at RNCNJCEP@NJCleanEnergy.com and copy their relevant Program Specialist. The Program Manager may grant up to two extensions per project, not to exceed one year, collectively. Any extensions beyond this can be submitted for consideration using the Program Dispute Resolution process in Section 9, below.
 - b. Multifamily projects expire three years after the Site Registration is received and are <u>not</u> eligible for any extensions of their expiration date or commitments.
- 3. All applicants must submit a valid municipal building permit with their Site Registration. In instances where an applicant is pursuing code compliance through the RNC Program, an Acknowledgement Letter will be issued with the understanding that the applicant must upload the permit to the online portal once the permit is granted. Payments will not be issued until the permit has been received by the program.
- 4. The project must be registered a minimum of one business day before notifying the RNC program about the Pre-Drywall inspection. In other words, notification of an inspection must be provided by 5pm on the night before the inspection is scheduled. Projects being submitted and inspected on the same day are not eligible to participate in the program.
- 5. Customers eligible for the Affordable Housing Bonus must provide documentation that the building identifies as participating in a federal, state, or local affordable housing program as defined above. Customers eligible for the UEZ bonus must provide documentation that the building resides within one or more municipalities designated by the State of New Jersey.
- 6. If a project passes the expiration date and has not requested an extension, if eligible, among other consequences of expiration, the project's commitment amount, if any, will be terminated, freeing the previously committed amount for other NJCEP purposes.
- 7. Expired projects may reapply, in which case they will be governed by the technical requirements applicable at the time the project's then-current building permit issued and will be eligible for the incentives, if any, available at the time of reapplication.

8. Quality Assurance Inspections

The Program Administrator will conduct sample Quality Assurance (QA) site inspections of the Rater's Predrywall and/or Final Inspections and file reviews of all EPA ENERGY STAR and/or ZERH Checklists and rating software files to confirm program requirements are being met. Consistent errors and/or inappropriate rating procedures identified through QA inspections or file reviews will subject Rating Companies to actions as defined in the contractor remediation process.

Inspection requirements may be adjusted based upon the track record of the program participants. Initial inspection rates for new builders and Raters may be higher and may decrease as they demonstrate proficiency in proper building techniques and the requirements of the Program.

9. Program Dispute Resolution

The Program is designed to allow for participation by any RESNET Certified Rater operating under a RESNET Accredited Rating Provider that meets the Program requirements upon completion of a program participation agreement. BPU-approved contractor remediation procedures will be followed if a contractor is found to violate program procedures and rules or consistently violates program requirements, which may include being barred from participating in the Program.

Disputes, concerns, or complaints that arise will be addressed initially by the Program Manager or Program Staff at the point of contact. If resolution for whatever reason is not possible, there is a <u>dispute resolution process</u> backed by the NJ Board of Public Utilities.

For contractual disputes between a customer and a contractor or builder, an online complaint can be filed with the NJ Division of Consumer Affairs (DCA).

10. Call Center Support

New Jersey's Clean Energy Program operates a call center staffed weekdays between 8 AM and 7 PM, excluding State holidays. The phone number is 866-NJSMART (866-657-6278). The call center is trained in answering general questions about the program and application processes and can direct callers to the appropriate Program Staff as needed.

11. Links to Website Information

- Overall homepage for the Residential New Construction program: www.NJCleanEnergy.com/RNC
- List of rating companies approved to work within the program: Rating Companies | NJ OCE Web Site (nicleanenergy.com)
- Building & Rating Company Information webpage: <u>www.NJCleanEnergy.com/residential/programs/nj-energy-star-homes/builder-information/builder-information</u>

 RNC portal that Rater Companies use to upload documents, inspection reports, and other submittals for program review. There is also a training video that Rater Companies can watch to learn how to use the portal. Individual Raters <u>must</u> register with the RNC program to use the portal.

www.NJCleanEnergy.com/RNCPORTAL

 Technical information that is required for Builders and Raters to participate in the program, including step-by-step instructions on how to enroll a home in the program along with associated program checklists used by the Raters.

www.NJCleanEnergy.com/residential/programs/nj-energy-star-homes/builder-information/participation-documents/participation-

 Frequently Asked Questions (FAQ) page: http://www.njcleanenergy.com/residential/programs/nj-energy-star-homes/faqs/new-jersey-energy-star-homes-frequently-asked-questio